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ABSTRACT

The report presents the findings of a study conducted to determine priority areas for research in vocational-technical education in Maine for 1975-77 as perceived by practitioners. A list of vocational education research areas was developed as a survey questionnaire and administered to 244 professional staff members of the seven postsecondary vocational-technical institutions in the State. One hundred and forty-nine (61%) were returned. Responses were analyzed question-by-question for each of five areas: needs for vocational education, curriculum development, instructional learning processes, student development and needs, and administration of vocational education. The responses are first reported by question according to institution, and following that, the highest priority responses for each of the five areas are reported, reflecting the following concerns: labor market requirements; assessment of educational needs of 16-18 year olds; development of new programs from emerging technologies; relating preparation competencies to job entry; development of multimedia instructional approaches; vocational counseling and followup; provision for advanced placement; and exploration of the role of the vocational, technical, and adult education system within postsecondary education. A sample questionnaire is appended to the report. (Author/HJ)

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RESEARCH AND DEVELOPMENT SERIES
NO. C/75-2

# RESEARCH PRIORITIES FOR VOCATIONAL-TECHNICAL EDUCATION IN MAINE 1975-1977

GERALD G. WORK, PH.D.
AND
CHARLES W. RYAN, PH.D.

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# RESEARCH PRIORITIES FOR VOCATIONAL-TECHNICAL EDUCATION IN MAINE 1975-1977

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# FOREWORD

In this generation one word has caused anxiety and trepidation among members of the professional education group. Accountability, a word that conjures up visions of "outsiders" intruding in the domains of educational theory and practice to determine if we are both effective and efficient. We will not be able in the foreseeable future to avoid giving "account" to our many publics the best possible answers to a variety of questions. For example, "How effective are our instructional procedures?" "What skills do our graduates use most effectively in the work world?" and "Do we use our public funds in a cost efficient manner?" Answers to these questions must be acquired in a valid and believable procedure for our questioners.

This report provides a critical assessment by educators, engaged in delivering vocational-technical education, of their perceptions regarding research priorities. It was our intent to develop a priority list of needed research within the vocational-technical education system in Maine. The list of research items was presented to vocational-technical educators in Maine's post-secondary vocational-technical institutions. The results can be used by vocational educators in developing priorities for research within their particular institutions and within the Bureau of Vocational Education.

G.G.W. and C.W.R.

October, 1975

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# CHAPTER I.

## INTRODUCTION

The availability of both federal and state funds for conducting basic research in vocational education requires each state agency to plan for effective use of research and development monies. Under the Vocational Education Act, Amended 1968, each state receives research and development funds to initiate both applied and experimental research. The intent of these funds is to improve the quality and quantity of research efforts in each state via a planned, systematic research effort at the state department and local educational level.

To succeed in developing a sound program of research will require that we (1) identify persons competent to conduct research efforts; (2) identify priority areas for research with the state agency and local educational agency (L.E.A.); and (3) arrive at rational concensus on priority areas by polling those most involved in the delivery of vocational education. The purpose of this report is to present the findings of a study conducted in May-June, 1975 to determine priority areas for research in vocational-technical education in 1975-1977. The relevancy of the present study is well-fitted to an accountability model and provides important feedback from practitioners on areas of research concern. It is imperative that information be secured to help answer the following questions: How do we convince

legislators of our needs for additional funding? How do we determine the efficiency and effectiveness of existing vocational-technical programs? Rhetoric without solid baseline data will no longer suffice in this age of fiscal and program accountability. The gap between valid evidence and conjecture must be reduced by those involved in program review and development.

A brief review of research terminology and a definition is essential for providing the readers with a common theoretical background. A definition of Research as reported in Webster's Third New International Dictionary defines it as follows: "critical and exhaustive investigation or experimentation having for its aim the discovery of new facts and their correct interpretation, the revision of accepted conclusions, theories, or laws in the light of newly discovered facts, or the practical applications of such new or revised conclusions, theories or laws." For vocational educators research as a process may be referred to as the use of systematic problem-solving strategies to discover solutions to specific problems. It is a tool of the decision maker and instructional staff. A variety of research methods, research designs, and statistical procedures may be used in the investigation and solution of educational problems. For example:

Applied Research: Applied research aims at finding the solution to some practical problem in a localized situation. What is needed is increased relevancy and utilization of research

through interaction and cooperation among the researchers and the practitioners using the team approach to identify the problems. The type of research depends upon the viewpoint or intent of the investigator and the nature of the problem to be solved. Applied researchers should be more conscious of the social utility of their work than basic researchers.

Many applied researchers reside within the vocational education establishment and are exposed to the problems of practitioners. The educator can be involved in the research process both as a consumer of research and/or as a producer of research. We anticipate that those who become involved in studies of their problems will be more likely to accept, diffuse, and utilize the results.

Research Problems: The identification of research problem areas and an adequate statement of research problems are two of the most important parts of research. Yet, under the present conditions of rapid change, researchers may have difficulty identifying the most crucial and most promising areas for study.

Vocational-technical education provides an almost unlimited field from which to select an appropriate problem. There are a number of lists of research problem areas and priorities which emanate from national, regional, and state levels. Very often, however, the most difficult task in planning a research project is to distinguish between a topic or research problem area and a researchable problem.

A problem area may be a very general problem which exists in society or education which is broad in scope and, therefore, too complex or poorly defined to study in one relatively small research project. Problem areas must be restricted to smaller, workable units. The variety of implications, variables, and alternative ways of viewing a problem demand a focused approach. Possible solutions are more readily identified through a specific study. Eventually, the research study must be delimited to a problem statement which asks what relation exists between two or more variables. The first question to be resolved is "What is the problem?"

This study was conducted in order to develop a prioritized list of research problem areas or topics as perceived by local vocational-technical educators in Maine. Further development of research proposals and the design for conducting a study is the responsibility of those utilizing the report.

Research Priorities: A Research Coordinating Unit must continuously examine its priorities in performing its functions of stimulating, coordinating, facilitating, conducting and disseminating research.

According to Webster's Third New International Dictionary, one meaning of "priority" is the assignment of a preferential rating to certain items according to a relative need for each; or for its meriting attention prior to competing alternatives.

Financial support for research and development projects in education and vocational-technical education has been available for several years from multiple sources including federal, regional, and state agencies. Each of these agencies has its own set of guidelines to aid the researcher in determining the appropriateness of seeking funds from that particular source. In addition to the above, research studies arise from many different groups, e.g. administrators, faculty, students, boards, agencies, institutions, and other groups and individuals. Sufficient funds are seldom available to support all of the project applications submitted. Hence, there is a need for establishing priorities to facilitate more efficient use of funds available and to support those projects where the greatest need exists in terms of the anticipated impact.

Objectives: The objectives of this study were to:

1. Develop a list of vocational education research areas or topics for inclusion in a survey instrument.
2. Develop a prioritized list of vocational education research areas or topics based on perceptions of vocational education staff with various job titles in several areas of work.
3. Prepare a report of the findings for use in improved planning, review, and management of vocational education research in Maine.

These objectives were accomplished through various strategies, activities, and procedures as indicated in the next chapter.

# CHAPTER II.

# METHODOLOGY

The purpose of this study was to determine the research needs in Maine's vocational-technical educational institutions (VTAE) as perceived by practitioners. Input from administrators, instructional staff, and other staff members was essential in establishing a valid list of research and development priorities. A review of the Wisconsin report entitled Developing A State System of Managed Research and Development Activities in Vocational Education provided further topics for the questionnaire and suggestions for improving efficiency of this effort. In May, 1975 project staff conducted a review of all items prior to printing the final form of the research questionnaire (see Appendix B).

## Instrument Development

The questionnaire includes 45 structured items in five categories: (1) Needs for Vocational Education, (2) Curriculum Development, (3) Instructional Learning Processes, (4) Student Development and Needs, and (5) Administration of Vocational Education. The five point Likert-type scale permitted response ratings of "1 - No priority - research not needed," "2 - Low priority - little need for research," "3 - Average priority - research needed but not essential," "4 - High priority - research greatly needed" and "5 - Extremely high priority - critical need for research." Each category contained one open-ended

item labeled "other" which permitted the respondent to add personal comments.

The population was defined as all professional staff members employed as of May 1, 1975 in the seven post-secondary vocational-technical institutes operated by the State Board of Education and controlled by the Bureau of Vocational Education, SDECS. A total of 244 staff members were asked to respond. A disproportional sample was involved as the majority of the population were classified as teachers.

The questionnnaire was prepared at the College of Education, University of Maine, Orono and 300 copies mailed to the Directors of the seven post-secondary vocational-technical institutes (See Appendix A). A total of 149 completed questionnaires were returned to the Project Director prior to June 30, 1975. Data analysis involved key punching for use with the IBM 360 SPSS program. Computer printouts were returned and the project staff tabulated and analyzed the data for this report.

# CHAPTER III.

## ANALYSIS OF THE DATA

Responses to the Priorities of Vocational Education Research Activities questionnnaire (PVERA) were analyzed question by question for each of the five areas:

A. Needs for Vocational Education - seven questions.

B. Curriculum Development - eight questions.

C. Instructional Learning Processes - five questions.

D. Students - eleven questions.

E. Administration of Vocational Education - fourteen questions.

Each section included an "other" question; however, responses did not indicate any trends and were, therefore, not included in the analysis.

The first three questions asked for demographic information on school position, and subject specialty of the respondents. That information is listed below. A total of 244 questionnaires were sent, of which 149 were returned and used in the analysis (61%).

Responses by Institution

| | |
|---|---|
| Northern Maine VTI (NMVTI) | 17 |
| Eastern Maine VTI (EMVTI) | 36 |
| Washington County VTI (WCVTI) | 11 |
| Central Maine VTI (CMVTI) | 22 |
| Southern Maine VTI (SMVTI) | 51 |
| Southern Maine School of Practical Nursing (SMSPN) | 5 |
| State Department of Educational and Cultural Services (SDECS) | 7 |
| Total | 149 |

Responses by Positions

| | |
|---|---|
| Director | 6 |
| Assistant Director for Academic Affairs | 1 |
| Assistant Director for Student Affairs | 2 |
| Dean of Instruction | 2 |
| Dean of Admissions | 1 |
| Dean of Students | 1 |
| Director of Adult Education | 4 |
| Instructor | 108 |
| Other | 24 |
| Total | 149 |

Responses by Subject Specialty

| | |
|---|---|
| General Education | 19 |
| Agriculture | 1 |
| Business and Office Occupations | 3 |
| Distributive Education | 2 |
| Health Occupations | 16 |
| Home Economics | 1 |
| Trades and Industry | 69 |
| General Administration | 11 |
| Other | 27 |
| Total | 149 |

Means and standard deviations were compiled for the entire sample and each of the seven institutions included in the study. The responses are first reported by question according to institution and following that, the highest priority responses for each of the five areas in the questionnaire are given. The final chapter of the report includes conclusions and recommendations.

Respondents were asked to mark their responses to each of the questions on a five-point scale, with 1 as "no priority" and 5 as "extremely high priority".

A. NEEDS FOR VOCATIONAL EDUCATION

1. Labor Market Requirements

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 3.65 | 1.13 |
| NMVTI | 3.76 | .75 |
| EMVTI | 3.58 | 1.32 |
| WCVTI | 3.73 | .79 |
| CMVTI | 4.09 | .75 |
| SMVTI | 3.76 | .93 |
| SMSPN | 1.60 | 1.82 |
| SDECS | 2.86 | 1.46 |

All of the VTI instructional staff rated labor market requirements as a higher research priority than the remaining two groups. It is important for the VTI's to have accurate labor market data since they need to gear their staffing and course offerings to market conditions. For the entire sample, it was ranked above average.

2. General Societal Needs, e.g. Environment

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.83 | 1.19 |
| NMVTI | 2.59 | 1.18 |
| EMVTI | 2.50 | 1.18 |
| WCVTI | 2.91 | 1.14 |
| CMVTI | 2.36 | 1.25 |
| SMVTI | 3.29 | .99 |
| SMSPN | 3.60 | 1.34 |
| SDECS | 2.57 | 1.51 |

Most of the VTI's rated general societal needs below the average priority rating while the SMSPN staff ranked it above the mean. For the entire sample, it was ranked below average.

3. Technological Assessment

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.96 | 1.19 |
| NMVTI | 3.00 | 1.22 |
| EMVTI | 2.79 | 1.24 |
| WCVTI | 2.73 | .65 |
| CMVTI | 2.91 | .97 |
| SMVTI | 3.33 | 1.11 |
| SMSPN | 1.60 | 1.34 |
| SDECS | 2.57 | 1.81 |

The VTI's as a group were consistent in their rating while the SMSPN staff rated this area of no priority. For the entire sample, it was rated below average.

4. Assessment of Individual's Vocational, Technical, and Adult Education Needs

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.11 | 1.15 |
| NMVTI | 3.59 | 1.00 |
| EMVTI | 2.81 | 1.17 |
| WCVTI | 3.18 | .75 |
| CMVTI | 2.95 | 1.29 |
| SMVTI | 3.33 | 1.01 |
| SMSPN | 2.20 | 1.64 |
| SDECS | 2.86 | 1.46 |

The VTI's scored this question around the average priority while the SMSPN staff rated it below average. For the entire sample, it was ranked slightly above average.

5. Educational Needs for 16-18 Year Olds

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.31 | 1.10 |
| NMVTI | 3.35 | 1.37 |
| EMVTI | 3.17 | 1.28 |
| WCVTI | 3.64 | .67 |
| CMVTI | 3.23 | .75 |
| SMVTI | 3.45 | .97 |
| SMSPN | 2.60 | 1.52 |
| SDECS | 3.29 | 1.60 |

With the exception of SMSPN, all of the units rated this question as above-average priority. The entire sample reflected the above average rating for all but one of the units.

6. Educational Needs for the Incarcerated

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.09 | 1.20 |
| NMVTI | 2.82 | 1.33 |
| EMVTI | 3.19 | 1.21 |
| WCVTI | 3.27 | 1.10 |
| CMVTI | 3.27 | 1.12 |
| SMVTI | 3.10 | 1.04 |
| SMSPN | 2.40 | 1.34 |
| SDECS | 2.86 | 2.12 |

The mean for the entire sample reflected the clustering of responses for this area....an average priority.

7. Educational Needs for Mid-Career Individuals

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.77 | 1.33 |
| NMVTI | 3.06 | 1.64 |
| EMVTI | 2.86 | 1.27 |
| WCVTI | 2.73 | 1.35 |
| CMVTI | 2.45 | 1.30 |
| SMVTI | 2.88 | 1.23 |
| SMSPN | 1.60 | 1.34 |
| SDECS | 2.71 | 1.50 |

The clustering of responses to this area indicated low priority. Over the past few years much emphasis in the mass media and professional publications has been given to lifelong education. Given that emphasis, it is interesting to note that the respondents did not rank it at a higher priority. A prime factor in future enrollments will be adults seeking re-training for mid-career shifts and women re-entering the labor market.

B. CURRICULUM DEVELOPMENT

8. Determining Course/Module Content

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.17 | 1.21 |
| NMVTI | 3.41 | 1.00 |
| EMVTI | 2.81 | 1.33 |
| WCVTI | 3.36 | .67 |
| CMVTI | 3.09 | 1.27 |
| SMVTI | 3.53 | 1.12 |
| SMSPN | 2.60 | 1.67 |
| SDECS | 2.29 | 1.11 |

Determining course/module content received an average priority rating for the entire sample.

9. Developing Learning Activities

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.00 | 1.09 |
| NMVTI | 3.47 | .72 |
| EMVTI | 2.56 | 1.25 |
| WCVTI | 3.27 | .90 |
| CMVTI | 3.00 | 1.15 |
| SMVTI | 3.08 | 1.02 |
| SMSPN | 2.80 | 1.09 |
| SDECS | 3.29 | 1.11 |

An average priority rating was assigned to this question by the entire sample.

10. Sequencing of Courses/Modules

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.89 | 1.11 |
| NMVTI | 3.53 | 1.07 |
| EMVTI | 2.56 | 1.30 |
| WCVTI | 3.00 | .63 |
| CMVTI | 2.50 | 1.06 |
| SMVTI | 3.12 | .89 |
| SMSPN | 1.80 | 1.64 |
| SDECS | 3.14 | .90 |

A below average priority was assigned to this question by the entire sample with SMSPN rating it the lowest.

11. Determining Performance Levels of Competencies For Job Entry

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.37 | 1.23 |
| NMVTI | 3.53 | 1.37 |
| EMVTI | 2.86 | 1.46 |
| WCVTI | 3.73 | .90 |
| CMVTI | 3.18 | 1.26 |
| SMVTI | 3.59 | 1.00 |
| SMSPN | 3.00 | 1.22 |
| SDECS | 4.29 | .49 |

Job entry performance levels received an above average rating by the entire sample with SDECS rating it a high priority level. Further research would be needed for assessing the differing perception between SDECS and VTI staff.

12. Determining Performance Levels of Competencies For Job Advancement

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.29 | 1.23 |
| NMVTI | 3.53 | 1.42 |
| EMVTI | 2.67 | 1.39 |
| WCVTI | 3.64 | .92 |
| CMVTI | 3.18 | 1.30 |
| SMVTI | 3.57 | .98 |
| SMSPN | 3.00 | 1.22 |
| SDECS | 4.00 | .58 |

The responses to this question were similar to those for question number 11. With the exception of EMVTI, all groups rated it above average priority with SDECS rating it the highest.

13. Secondary - Post-Secondary Curriculum Articulation

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.24 | 1.35 |
| NMVTI | 3.71 | 1.57 |
| EMVTI | 2.81 | 1.53 |
| WCVTI | 3.36 | 1.43 |
| CMVTI | 3.04 | 1.59 |
| SMVTI | 3.37 | 1.02 |
| SMSPN | 3.40 | 1.14 |
| SDECS | 3.71 | .76 |

This area was rated uniformly above average by the entire sample.

14. Developing New Programs From Emerging Technologies

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.53 | 1.09 |
| NMVTI | 3.76 | 1.09 |
| EMVTI | 3.50 | 1.18 |
| WCVTI | 3.36 | 1.12 |
| CMVTI | 3.27 | 1.16 |
| SMVTI | 3.74 | 1.00 |
| SMSPN | 2.80 | 1.09 |
| SDECS | 3.14 | .69 |

This area was seen as an above average priority by the respondents. All except SMSPN ranked it 3.0 or better.

15. Models for Core Program Development

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.83 | 1.23 |
| NMVTI | 3.47 | 1.12 |
| EMVTI | 2.39 | 1.27 |
| WCVTI | 3.27 | 1.35 |
| CMVTI | 2.45 | 1.40 |
| SMVTI | 3.04 | .98 |
| SMSPN | 2.00 | 1.41 |
| SDECS | 3.14 | .90 |

Responses indicated a below average priority for this question. Does this reflect a behavioral pattern among VTI staff to not experiment on a limited scale with new programs prior to seeking full implementation? Further study of this item would be warranted.

C. INSTRUCTIONAL LEARNING PROCESSES

16. Applied Research On Student Learning Styles

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.92 | 1.20 |
| NMVTI | 3.12 | .99 |
| EMVTI | 2.67 | 1.22 |
| WCVTI | 3.09 | 1.30 |
| CMVTI | 2.59 | 1.22 |
| SMVTI | 2.90 | 1.22 |
| SMSPN | 3.60 | .89 |
| SDECS | 4.14 | .69 |

The entire sample rated this question below average. One high priority group was noted...SDECS. The breadth and depth of teacher training received by VTI staff may be a critical variable in this response pattern.

17. Applied Research in Teaching Styles

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.99 | 1.24 |
| NMVTI | 3.18 | 1.13 |
| EMVTI | 2.58 | 1.27 |
| WCVTI | 3.00 | 1.09 |
| CMVTI | 2.91 | 1.51 |
| SMVTI | 3.08 | 1.15 |
| SMSPN | 3.40 | 1.14 |
| SDECS | 3.86 | .90 |

The entire sample rated this question as an average priority, consistently clustering around 3.00.

18. Teaching Methods

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.99 | 1.22 |
| NMVTI | 3.23 | 1.15 |
| EMVTI | 2.39 | 1.22 |
| WCVTI | 3.54 | .69 |
| CMVTI | 3.14 | 1.55 |
| SMVTI | 3.06 | 1.10 |
| SMSPN | 3.40 | 1.14 |
| SDECS | 3.43 | .98 |

The entire sample rated this question consistently at an average priority level with only EMVTI rating it as a low priority.

19. Multi-Media Approaches

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 3.08 | 1.27 |
| NMVTI | 3.41 | 1.23 |
| EMVTI | 2.64 | 1.33 |
| WCVTI | 3.27 | 1.10 |
| CMVTI | 2.50 | 1.41 |
| SMVTI | 3.09 | 1.13 |
| SMSPN | 3.40 | .89 |
| SDECS | 3.57 | .98 |

Multi-media approaches was ranked as an average priority by the entire sample with EMVTI and CMVTI ranking it a low priority.

20. Learner Management of Instruction

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.70 | 1.22 |
| NMVTI | 2.94 | 1.20 |
| EMVTI | 2.50 | 1.23 |
| WCVTI | 3.09 | .54 |
| CMVTI | 2.64 | 1.53 |
| SMVTI | 2.59 | 1.10 |
| SMSPN | 2.60 | 1.67 |
| SDECS | 3.71 | 1.11 |

The entire sample rated this question as low priority, with only WCVTI and SDECS rating it as average priority.

## D. STUDENT DEVELOPMENT AND NEEDS

### 21. Barriers to Enrollment in Vocational-Technical Programs

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.75 | 1.23 |
| NMVTI | 3.23 | .97 |
| EMVTI | 2.92 | 1.10 |
| WCVTI | 2.54 | 1.13 |
| CMVTI | 2.32 | 1.52 |
| SMVTI | 2.61 | 1.27 |
| SMSPN | 3.40 | .55 |
| SDECS | 3.00 | 1.41 |

Surprisingly, this question received a low priority rating from the entire sample. Identifying barriers to enrollment and instituting changes would most naturally result in additional students.

### 22. Advanced Placement/Standing

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.02 | 1.18 |
| NMVTI | 3.35 | .93 |
| EMVTI | 3.25 | 1.20 |
| WCVTI | 2.64 | 1.12 |
| CMVTI | 2.41 | 1.14 |
| SMVTI | 3.12 | 1.21 |
| SMSPN | 3.40 | .55 |
| SDECS | 2.57 | 1.27 |

The entire sample ranked Advanced Placement/Standing as an average priority.

23. Appraising Student Achievement and Behavioral Change

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.87 | 1.22 |
| NMVTI | 3.06 | 1.25 |
| EMVTI | 2.53 | 1.34 |
| WCVTI | 3.18 | 1.40 |
| CMVTI | 2.45 | 1.10 |
| SMVTI | 3.08 | 1.05 |
| SMSPN | 3.80 | .84 |
| SDECS | 2.86 | 1.46 |

Most of the groups responded at or below-average priority. SMSPN, responded with a high priority ranking.

24. Student Attrition/Withdrawals

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.91 | 1.26 |
| NMVTI | 2.76 | .97 |
| EMVTI | 3.06 | 1.19 |
| WCVTI | 2.73 | 1.27 |
| CMVTI | 2.41 | 1.37 |
| SMVTI | 3.02 | 1.32 |
| SMSPN | 3.80 | .84 |
| SDECS | 2.86 | 1.57 |

Student Attrition/Withdrawals ranked as an average priority for all groups except SMSPN which gave it a high priority ranking.

25. Student Placement

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.44 | 1.29 |
| NMVTI | 2.88 | 1.05 |
| EMVTI | 3.72 | 1.03 |
| WCVTI | 3.54 | 1.57 |
| CMVTI | 2.64 | 1.46 |
| SMVTI | 3.78 | 1.22 |
| SMSPN | 3.20 | .84 |
| SDECS | 3.29 | 1.70 |

This area received a relatively high ranking and above average priority status.

26. Student Follow-Up Procedures

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.36 | 1.19 |
| NMVTI | 3.29 | 1.05 |
| EMVTI | 3.58 | .97 |
| WCVTI | 3.64 | 1.36 |
| CMVTI | 2.77 | 1.27 |
| SMVTI | 3.41 | 1.25 |
| SMSPN | 3.60 | .55 |
| SDECS | 3.14 | 1.68 |

Most groups ranked this question at or above-average.

27. Leisure, Athletic or Social Activities

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.42 | 1.16 |
| NMVTI | 2.41 | 1.00 |
| EMVTI | 2.61 | 1.22 |
| WCVTI | 2.82 | 1.17 |
| CMVTI | 2.23 | 1.31 |
| SMVTI | 2.37 | 1.08 |
| SMSPN | 2.60 | 1.14 |
| SDECS | 1.71 | 1.25 |

This area received a low priority ranking by all groups. When compared with the responses for questions #26 and #27, the priority is clearly for those activities which will eventually assist students to secure employment.

28. Student Clubs, Student Government

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.34 | 1.14 |
| NMVTI | 2.76 | 1.25 |
| EMVTI | 2.47 | 1.13 |
| WCVTI | 2.36 | 1.21 |
| CMVTI | 2.00 | 1.19 |
| SMVTI | 2.31 | 1.04 |
| SMSPN | 2.40 | 1.14 |
| SDECS | 1.71 | 1.25 |

As with the previous question, this area ranked low. Again, it can be compared with the responses for questions #26 and #27. Perhaps, we need to assess the full range of services provided students within the VTI's. A low ranking may indicate a lack of knowledge because the area has never been included.

29. Student Health Services

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.78 | 1.23 |
| NMVTI | 2.88 | 1.22 |
| EMVTI | 3.06 | 1.26 |
| WCVTI | 2.54 | 1.04 |
| CMVTI | 2.14 | 1.12 |
| SMVTI | 3.02 | 1.19 |
| SMSPN | 3.00 | .71 |
| SDECS | 1.71 | 1.25 |

Responses placed this question near the average priority, although there were two low priority rankings (CMVTI and SDECS).

30. Counseling Students

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.43 | 1.25 |
| NMVTI | 3.35 | 1.06 |
| EMVTI | 3.44 | 1.08 |
| WCVTI | 3.36 | 1.43 |
| CMVTI | 2.77 | 1.41 |
| SMVTI | 3.74 | 1.13 |
| SMSPN | 4.20 | .84 |
| SDECS | 2.86 | 2.03 |

The entire sample ranked this question as an above-average priority. What percentage of time do VTI instructors devote to counseling of students and were adequate office facilities available to assist this process?

31. Models for Comprehensive Student Services

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.62 | 1.31 |
| NMVTI | 2.53 | 1.12 |
| EMVTI | 2.61 | 1.50 |
| WCVTI | 2.82 | 1.40 |
| CMVTI | 2.09 | 1.31 |
| SMVTI | 2.88 | 1.19 |
| SMSPN | 2.80 | .45 |
| SDECS | 2.14 | 1.57 |

This area was ranked uniformly low by all groups and may reflect the absence of a comprehensive student service model within the VTI structure.

E. ADMINISTRATION OF VOCATIONAL EDUCATION

32. Evaluation of Overall VTAE

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.01 | 1.23 |
| NMVTI | 3.53 | .94 |
| EMVTI | 3.00 | 1.04 |
| WCVTI | 2.82 | .87 |
| CMVTI | 2.50 | 1.63 |
| SMVTI | 3.23 | 1.14 |
| SMSPN | 2.40 | 1.34 |
| SDECS | 2.43 | 1.81 |

Responses for this area clustered around an average priority.

33. Evaluation of Post-Secondary Program and/or Components

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.14 | 1.12 |
| NMVTI | 3.29 | 1.31 |
| EMVTI | 3.03 | 1.03 |
| WCVTI | 3.18 | 1.33 |
| CMVTI | 2.64 | 1.40 |
| SMVTI | 3.41 | .85 |
| SMSPN | 3.40 | .89 |
| SDECS | 2.71 | 1.38 |

The entire sample indicated an average priority ranking.

34. Evaluation of Adult Programs and/or Components

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.16 | 1.30 |
| NMVTI | 3.35 | .93 |
| EMVTI | 2.94 | 1.24 |
| WCVTI | 2.73 | 1.62 |
| CMVTI | 2.91 | 1.54 |
| SMVTI | 3.49 | 1.17 |
| SMSPN | 2.40 | 1.34 |
| SDECS | 3.43 | 1.62 |

This area was also ranked as an average priority by the entire sample.

35. External Validation of Mission, Goals, and Objectives

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.87 | 1.20 |
| NMVTI | 2.82 | 1.38 |
| EMVTI | 2.47 | 1.08 |
| WCVTI | 3.45 | 1.29 |
| CMVTI | 2.54 | 1.47 |
| SMVTI | 3.20 | .92 |
| SMSPN | 2.60 | 1.52 |
| SDECS | 2.86 | 1.34 |

This area was ranked as a low priority by most of the respondent groups. WCVTI and SMVTI ranked it as an average priority. It may imply a resistance to external review of program goals and objectives by SDECS staff or accrediting agencies and should receive further study.

36. Evaluation of Institutional Organizational Structure and Administrative Processes

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 3.03 | 1.27 |
| NMVTI | 3.00 | 1.50 |
| EMVTI | 2.72 | 1.21 |
| WCVTI | 3.09 | 1.45 |
| CMVTI | 2.73 | 1.58 |
| SMVTI | 3.39 | .98 |
| SMSPN | 2.80 | .45 |
| SDECS | 3.14 | 1.68 |

The entire sample ranked this area as an average priority. All groups were clustered around this ranking.

37. Differentiated Staffing

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.33 | 1.33 |
| NMVTI | 2.65 | 1.27 |
| EMVTI | 2.08 | 1.25 |
| WCVTI | 2.18 | 1.54 |
| CMVTI | 2.14 | 1.39 |
| SMVTI | 2.53 | 1.21 |
| SMSPN | 1.80 | 1.64 |
| SDECS | 2.57 | 1.99 |

The rankings for differentiated staffing were uniformly low for all groups with SMSPN ranking it as no priority.

38. Open Entry/Open Exit Education

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 2.52 | 1.39 |
| NMVTI | 2.53 | 1.46 |
| EMVTI | 2.33 | 1.29 |
| WCVTI | 2.36 | 1.57 |
| CMVTI | 2.18 | 1.50 |
| SMVTI | 2.86 | 1.17 |
| SMSPN | 1.40 | 1.52 |
| SDECS | 3.00 | 2.08 |

This area was ranked as low priority by the entire sample; SDECS ranked it as an average priority.

39. Cost-Benefit Studies of VTAE Programs

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.78 | 1.28 |
| NMVTI | 3.12 | 1.62 |
| EMVTI | 2.61 | 1.20 |
| WCVTI | 2.54 | 1.04 |
| CMVTI | 2.64 | 1.40 |
| SMVTI | 2.98 | 1.12 |
| SMSPN | 2.40 | 1.34 |
| SDECS | 2.43 | 1.90 |

Cost-benefit studies was ranked as a low priority by the entire sample. Only one of the seven groups, NMVTI, gave it an average priority ranking and may reflect a reluctance to establish priority ratings for initiating or closing out non-productive programs.

40. Educational Programs, Activities and Services for Disadvantaged/Handicapped

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.98 | 1.29 |
| NMVTI | 3.00 | 1.37 |
| EMVTI | 2.89 | 1.21 |
| WCVTI | 3.27 | 1.27 |
| CMVTI | 2.36 | 1.29 |
| SMVTI | 3.29 | 1.08 |
| SMSPN | 3.00 | 1.87 |
| SDECS | 2.57 | 1.99 |

The entire sample ranked this question as an average priority.

41. Countering Sex Stereotyping of Occupational Education Programs

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.62 | 1.28 |
| NMVTI | 2.82 | 1.42 |
| EMVTI | 2.61 | 1.27 |
| WCVTI | 2.64 | .92 |
| CMVTI | 2.14 | 1.42 |
| SMVTI | 2.80 | 1.20 |
| SMSPN | 2.80 | .84 |
| SDECS | 2.29 | 1.80 |

All respondent groups ranked this area as a low priority. This finding is not consistent with the national trend to encourage females to enter non-traditional career roles. Also, it would not be consistent with the need to attract the best qualified student to each program, regardless of sex.

42. Role of the VTAE System Within Post-Secondary Education

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 3.19 | 1.43 |
| NMVTI | 3.59 | 1.42 |
| EMVTI | 3.17 | 1.28 |
| WCVTI | 3.36 | .92 |
| CMVTI | 2.82 | 1.62 |
| SMVTI | 3.47 | 1.43 |
| SMSPN | 2.20 | 1.30 |
| SDECS | 1.86 | 1.46 |

The entire sample ranked this area as an average priority. Two groups, SMSPN and SDECS ranked it as a low priority. It is essential that leadership be exercised in determining the role and function of vocational-technical education in relation to the total system of higher education available to our citizens.

For example, duplication of programs is not advisable in view of the limited funds available to support the total higher education mission.

43. Impact of Research on VTAE Staff

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.59 | 1.28 |
| NMVTI | 2.65 | 1.54 |
| EMVTI | 2.42 | 1.10 |
| WCVTI | 2.73 | .79 |
| CMVTI | 2.27 | 1.35 |
| SMVTI | 2.84 | 1.29 |
| SMSPN | 2.40 | 1.52 |
| SDECS | 2.43 | 1.81 |

The entire sample ranked this area as a low priority with all individual groups reflecting that ranking. This finding implies that we are not concerned with using research results in terms of changing behavior or modifying programs.

44. Evaluation of VTAE Professional Personnel

| | Responses | |
|---|---|---|
| Group | Mean | Standard Deviation |
| Entire Sample | 2.87 | 1.24 |
| NMVTI | 2.94 | 1.43 |
| EMVTI | 2.78 | 1.12 |
| WCVTI | 2.91 | .70 |
| CMVTI | 2.68 | 1.46 |
| SMVTI | 3.04 | 1.20 |
| SMSPN | 2.80 | 1.09 |
| SDECS | 2.43 | 1.81 |

Although ranked as a low priority by the entire sample, the means of the respondent groups clustered at the high end of that category.

45. Determining Professional Development Needs

| Group | Responses Mean | Standard Deviation |
|---|---|---|
| Entire Sample | 3.11 | 1.25 |
| NMVTI | 3.53 | 1.33 |
| EMVTI | 2.94 | 1.26 |
| WCVTI | 3.27 | 1.01 |
| CMVTI | 2.50 | 1.37 |
| SMVTI | 3.39 | 1.04 |
| SMSPN | 2.80 | 1.92 |
| SDECS | 2.86 | 1.46 |

This area received an average priority response ranking from the entire sample. Respondent groups reflected that ranking.

In order to provide a clearer picture of research priorities, the four highest ranked questions for each of the five areas are presented and discussed. Rank order within each of the areas was based on the average for the entire sample of 149 respondents.

A. NEEDS FOR VOCATIONAL EDUCATION

| Rank | | Mean |
|---|---|---|
| 1. | Labor Market Requirements | 3.65 |
| 2. | Educational Needs for 16-18 Year Olds | 3.31 |
| 3. | Assessment of Individuals' Vocational Technical and Adult Education Needs | 3.11 |
| 4. | Educational Needs for Incarcerated | 3.09 |

The fact that Labor Market Requirements was ranked #1 in Group A should come as no surprise. The vocational-technical thrust has been to respond to the needs of the labor market by offering programs for those areas in constant need of manpower and to respond to new, developing needs in the labor market. The items ranked #2 and #3 reflect

more specific responses to #1. Somewhat surprising was the fourth-ranked item, educational needs for the incarcerated. It was ranked higher than "educational needs for mid-career individuals," despite the attention given life-long education in the professional and mass media publications.

B. CURRICULUM DEVELOPMENT

| Rank | | Mean |
|---|---|---|
| 1. | Developing New Programs from Emerging Technologies | 3.53 |
| 2. | Determining Performance Levels of Competencies for Job Entry | 3.37 |
| 3. | Determining Performance Levels of Competencies for Job Advancement | 3.29 |
| 4. | Secondary-Post-Secondary Curriculum Articulation | 3.24 |

Items which were ranked highest within the Curriculum Development area appeared to be internally consistent. That is, items ranked highest focused on the viability of curricula from high school through the vocational-technical program to the eventual goals of securing a job and advancing within it.

C. INSTRUCTIONAL LEARNING PROCESSES

| Rank | | Mean |
|---|---|---|
| 1. | Multi-Media Approaches | 3.08 |

One item only was ranked at an average priority (3). The remaining four items were scored as low priority items (2) and, therefore, not included. This area included the lowest number of items which may have contributed to the relatively low priorities assigned to it. It may reflect a rejection of instructional alternatives to the traditional lecture system; or a lack of knowledge of alternatives.

D. STUDENT DEVELOPMENT NEEDS

| Rank | | Mean |
|---|---|---|
| 1. | Student Placement | 3.44 |
| 2. | Counseling Students | 3.42 |
| 3. | Student Follow-Up Procedures | 3.36 |
| 4. | Advanced Placement/Standing | 3.02 |

A total of eleven items were included in this section. The four which were ranked highest focused on job placement and those student development needs which would enhance that goal. Counseling students was ranked second. When viewed in the context of the other three items, the counseling emphasis might be seen as vocationally oriented to help in securing an entry level job.

E. ADMINISTRATION OF VOCATIONAL EDUCATION

| Rank | | Mean |
|---|---|---|
| 1. | Role of the VTAE System Within Post-Secondary Education | 3.19 |
| 2. | Evaluation of Adult Programs and/or Components | 3.16 |
| 3. | Evaluation of Specific Programs and/or Components | 3.14 |
| 4. | Determining Professional Development Needs | 3.11 |

Each of the four highest ranked items centered on basic components of the VTAE system. The highest ranked item called for a clarification of the relationship of VTAE within the total network of post-secondary opportunities in Maine. The focus then shifted to evaluation of specific components within the VTAE system. The last item, determining professional development needs, would enhance items #2 and #3.

# CHAPTER IV.

## CONCLUSIONS & RECOMMENDATIONS

The need to identify and prioritize research directions for the Bureau of Vocational Education and staff of the VTI's was a primary factor in conducting the study. A variety of professional staff members in the vocational-technical institutes and consultants from the Bureau of Vocational Education responded to a questionnaire. Of the 149 respondents, 108 were teachers; this may be a limiting factor in attempting to establish broad-based research priorities. However, all professional staff members in the vocational-technical institutes and consultants from the Bureau of Vocational Education were provided an opportunity to rank research priorities from among 45 selected items. Over 300 questionnaires were mailed to the Directors of each vocational-technical institute with appropriate directions for distribution to the faculty (See Appendix A). A total of 142 of the questionnaires were returned from a possible pool of 244 staff members. In addition, questionnaires were distributed to all consultants within the Bureau of Vocational Education. A total of 7 were returned. A total data pool of 149 (61%) completed questionnaires comprised the sample. From these tabulated and analyzed results the following conclusions and recommendations were generated.

CONCLUSION #1

Each of the 45 items were ranked on a five-point Likert scale, with 1 indicating no priority, and 5 indicating an extremely high priority. For the entire sample, responses to all items were either 2 or 3. There were no mean responses in the 1, 4, or 5 categories for any of the items. In effect, the entire sample considered all to be of low or average priority. An analysis of individual responses to each of the items indicated a range from one to five; but the averaging process for the entire sample produced a relatively narrow range of responses. The highest four average responses for each of the five areas constituted the basis for the establishment of research priorities in post-secondary vocational-technical education for 1975-1977.

CONCLUSION #2

The items ranked highest within and across the five areas indicated a marked consistency. With few exceptions, the trend was centered on a pragmatic concern for eventual job placement. Within the context of the present restricted job market, a focus on job placement and related activities is understandable. The job market for the period 1972-75, has become increasingly depressed and prospects for the next few years appear to be equally so. Therefore, research priorities, as identified by the total sample, reflected the need to focus on:

1. Needs for vocational education - labor market requirements ranked highest with concomitant concern for the educational needs of 16-18 year olds, and the assessment of the individual's VTAE needs; a more specific need in this area was for the educational development of the incarcerated as related to VTAE. In effect, determine general labor market requirements and then assess the needs of the largest and most likely consumers.

2. Curriculum development - the major concern was to develop new programs from emerging technologies; associated with new or old programs was to determine performance levels or competencies for job entry and to do the same for job advancement; the final priority for curriculum development was increased attention to secondary - post-secondary curriculum articulation. In summary, it is important to research and develop new programs related to the job market and to relate preparation competencies to job entry and advancement with concern for articulation from secondary to post-secondary programs.

3. Instructional learning processes - multi-media approaches was the only item among five in this area ranked at an average priority. The others fell into the low priority category. It may have been viewed by the respondents as a low priority area in a time of economic stress. Perhaps, the reliance on traditional lecture and discussion procedures inhibits other instructional alternatives such as simulation

games, programmed learning, small group discussions, and independent work.

4. Student development and needs - it was within this area, consisting of twelve items (other included), that the focus on securing a job was most evident. The four highest ranked items related to placement in a job, counseling students - presumably from a vocational standpoint, follow-up procedures, and providing for advanced placement or advanced standing. Items which dealt with other student personnel functions such as leisure, athletic or social activities and student clubs or student government were rated considerably lower. The data appeared to reflect an anti-student development bias in relation to leisure, affective education, and establishing comprehensive student services. Research to identify the exact needs of students for personnel services would be essential. The paradigm for this area was: to provide counseling help and opportunities for advanced standing or placement with eventual placement and appropriate follow-up activities.

5. Administration of vocational education - this area consisted of fifteen items (other included) and was the largest. The role of the VTAE system within post-secondary education received first-ranked priority; which may indicate uncertainty of the VTAE system in relation to the University of Maine system. Although there is cooperation and communication between the two systems, they are administered separately.

The next two items ranked were related to the evaluation of adult and specific programs. The last-ranked item concerned the determination of professional development needs. Specific professional development needs may be related to a number of those items included under the instructional learning processes section.

CONCLUSION #3

The rankings for each of the five areas provided valuable guidelines for those interested in and capable of research within the Vocational-Technical Institute system. More specifically, the results of this study will provide the Research Coordinating Unit, Bureau of Vocational Education with research priorities for the two-year period 1975-77. The areas covered and the items included within each area were sufficiently encompassing to elicit a wide range of research proposals, from descriptive and applied to quasi-experimental models.

RECOMMENDATIONS

1. The Research Coordinating Unit of the Bureau of Vocational Education should consider incorporating the priorities identified in this study with previously established categories for funded research over the next two-year period, 1975-77.

2. The results of this project should be disseminated within and without the VTI system so that those interested in and capable of research projects will have access to the identified priorities.

3. The top ranked priorities for each of the 5 areas need to be examined for assignments to specific consultants as a research item within their annual plan or program of work.

4. Specific items need to be identified for possible inclusion in the Maine State Plan for Vocational Education.

5. A Research Advisory Committee should be established by the Bureau of Vocational Education to serve as an advisory board. The membership should reflect both vocational-technical and university-based educators.

6. An annual report of research activities should be prepared for distribution to educators, legislators, school administrators and other interested personnel. All research activities should be reported in annotated form and include efforts both within local education agencies and the university (reports that relate to vocational education).

7. A percentage of total vocational education funds (not to exceed 15%) should be earmarked for specific research related activities.

8. A series of research and development seminars should be organized for presentation to vocational-technical institute staff by the Research Coordinating Unit, Bureau of Vocational Education.

# REFERENCES

Smith, B.B. and Moss, Jerome, Developing A State System of Managed Research and Development Activities in Vocational Education. Minneapolis, Minn., Minnesota Research Coordinating Unit for Vocational Education, University of Minnesota, Minneapolis, Minn., Feb., 1972.

Research Priorities in Post-Secondary Vocational,Technical and Adult Education in Wisconsin for 1975-1977. Madison, Wisconsin: Wisconsin Research Coordinating Unit, Board of Vocational, Technical and Adult Education, Madison, Wisconsin, Feb., 1975.

APPENDIX A

A PROJECT TO ESTABLISH PRIORITIES
FOR VOCATIONAL EDUCATION RESEARCH ACTIVITIES
FOR MAINE 1975-1977

May, 1975

Dear Colleague:

We would appreciate your filling out the attached questionnaire before you leave for vacation. Please return the completed questionnaire to the Director of your institution as soon as possible. The Director will then mail them to us.

The nature of the project is to reassess research priorities for vocational education in Maine. It has been approximately two years since a study of research problems and priorities was conducted. The College of Education, University of Maine at Orono has been contracted to conduct this survey and report all findings to the Bureau of Vocational Education.

Sincerely,

Gerald G. Work, Ph.D.
Project Director
and
Charles W. Ryan, Ph.D.
Shibles Hall
University of Maine
at Orono
Orono, Maine 04473

APPENDIX B

A PROJECT TO ESTABLISH PRIORITIES
FOR VOCATIONAL EDUCATION RESEARCH ACTIVITIES
FOR MAINE 1975-1977

I. General Information:

A. Name of Institution_____

B. What is the title of your present position?

_____1. Director
_____2. Assistant Director for Academic Affairs
_____3. Assistant Director for Student Affairs
_____4. Business Manager
_____5. Dean of Instruction
_____6. Dean of Admissions
_____7. Dean of Students
_____8. Director of Adult Education
_____9. Instructor
_____10. Other (specify)_____

C. In which area do you do the greater part of your Vocational Technical Adult Education (VTAE) work?

_____1. General Education
_____2. Agriculture
_____3. Business and Office Occupations
_____4. Distributive Education
_____5. Health Occupations
_____6. Home Economics
_____7. Trades and Industry
_____8. General Administration
_____9. Other (specify)_____

II. Research Categories: Please place an "x" in the space 1 through 5 on each numbered item under categories "A" through "E" corresponding to your rating in terms of needed research over the next 2 years. Specify additional topics in blank spaces marked "Other".

| Vocational Education Research Area/Topic | Ratings | | | | |
|---|---|---|---|---|---|
| | No Priority - Research not needed | Low Priority - Little need for research | Average Priority - Research needed but not essential | High Priority - Research greatly needed | Extremely High Priority - Critical need for research |
| | 1 | 2 | 3 | 4 | 5 |
| A. NEEDS FOR VOCATIONAL EDUCATION | | | | | |
| 1. Labor market requirements | ___ | ___ | ___ | ___ | ___ |
| 2. General societal needs, e.g., environment | ___ | ___ | ___ | ___ | ___ |
| 3. Technological assessment | ___ | ___ | ___ | ___ | ___ |
| 4. Assessment of individual's vocational, technical and adult education needs | ___ | ___ | ___ | ___ | ___ |
| 5. Educational needs for 16-18 year olds | ___ | ___ | ___ | ___ | ___ |
| 6. Educational needs for the incarcerated | ___ | ___ | ___ | ___ | ___ |
| 7. Educational needs for mid-career individuals | ___ | ___ | ___ | ___ | ___ |
| 8. Other:_____ | ___ | ___ | ___ | ___ | ___ |
| B. CURRICULUM DEVELOPMENT | | | | | |
| 9. Determining course/module content | ___ | ___ | ___ | ___ | ___ |

| Vocational Education Research Area/Topic | Ratings | | | | |
|---|---|---|---|---|---|
| | No Priority - Research not needed | Low Priority - Little need for research | Average Priority - Research needed but not essential | High Priority - Research greatly needed | Extremely High Priority - Critical need for research |
| | 1 | 2 | 3 | 4 | 5 |
| 10. Developing learning activities | ___ | ___ | ___ | ___ | ___ |
| 11. Sequencing of courses/ modules | ___ | ___ | ___ | ___ | ___ |
| 12. Determining performance levels of competencies for job entry | ___ | ___ | ___ | ___ | ___ |
| 13. Determining performance levels of competencies for job advancement | ___ | ___ | ___ | ___ | ___ |
| 14. Secondary - post-secondary curriculum articulation | ___ | ___ | ___ | ___ | ___ |
| 15. Developing new programs from emerging technologies | ___ | ___ | ___ | ___ | ___ |
| 16. Models for core program development | ___ | ___ | ___ | ___ | ___ |
| 17. Other: _____ | ___ | ___ | ___ | ___ | ___ |
| C. INSTRUCTIONAL LEARNING PROCESSES | | | | | |
| 18. Applied research on student learning styles | ___ | ___ | ___ | ___ | ___ |
| 19. Applied research on teaching styles | ___ | ___ | ___ | ___ | ___ |
| 20. Teaching methods | ___ | ___ | ___ | ___ | ___ |

| Vocational Education Research Area/Topic | Ratings | | | | |
|---|---|---|---|---|---|
| | No Priority - Research not needed | Low Priority - Little need for research | Average Priority - Research needed but not essential | High Priority - Research greatly needed | Extremely High Priority - Critical need for research |
| | 1 | 2 | 3 | 4 | 5 |
| 21. Multi-media approaches | ___ | ___ | ___ | ___ | ___ |
| 22. Learner management of instruction | ___ | ___ | ___ | ___ | ___ |
| 23. Other:_____ | ___ | ___ | ___ | ___ | ___ |
| D. STUDENT DEVELOPMENT AND NEEDS | | | | | |
| 24. Barriers to enrollment in VTAE programs | ___ | ___ | ___ | ___ | ___ |
| 25. Advanced placement/ standing | ___ | ___ | ___ | ___ | ___ |
| 26. Appraising student achievement and behavioral change | ___ | ___ | ___ | ___ | ___ |
| 27. Student attrition/ withdrawals, etc. | ___ | ___ | ___ | ___ | ___ |
| 28. Student placement | ___ | ___ | ___ | ___ | ___ |
| 29. Student follow-up procedures | ___ | ___ | ___ | ___ | ___ |
| 30. Leisure, athletic or social activities | ___ | ___ | ___ | ___ | ___ |
| 31. Student clubs, student gov't, etc. | ___ | ___ | ___ | ___ | ___ |
| 32. Student health services | ___ | ___ | ___ | ___ | ___ |

| Vocational Education Research Area/Topic | Ratings | | | | |
|---|---|---|---|---|---|
| | No Priority - Research not needed | Low Priority - Little need for research | Average Priority - Research needed but not essential | High Priority - Research greatly needed | Extremely High Priority - Critical need for research |
| | 1 | 2 | 3 | 4 | 5 |
| 33. Counseling students | ___ | ___ | ___ | ___ | ___ |
| 34. Models for providing comprehensive student services | ___ | ___ | ___ | ___ | ___ |
| 35. Other:_____ | ___ | ___ | ___ | ___ | ___ |
| E. ADMINISTRATION OF VOCATIONAL EDUCATION | | | | | |
| 36. Evaluation of total VTAE | ___ | ___ | ___ | ___ | ___ |
| 37. Evaluation of specific programs and/or components | ___ | ___ | ___ | ___ | ___ |
| 38. Evaluation of adult programs and/or components | ___ | ___ | ___ | ___ | ___ |
| 39. External validation of mission, goals and objectives | ___ | ___ | ___ | ___ | ___ |
| 40. Evaluation of institutional organizational structure and administrative processes | ___ | ___ | ___ | ___ | ___ |
| 41. Differentiated staffing | ___ | ___ | ___ | ___ | ___ |
| 42. Open entry/open exit education | ___ | ___ | ___ | ___ | ___ |
| 43. Cost-benefit studies of VTAE programs | ___ | ___ | ___ | ___ | ___ |

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| | 1 | 2 | 3 | 4 | 5 |
| 44. Educational programs, activities and services for disadvantaged/handicapped | ___ | ___ | ___ | ___ | ___ |
| 45. Countering sex stereotyping of occupational education programs | ___ | ___ | ___ | ___ | ___ |
| 46. Role of the VTAE system within post-secondary education | ___ | ___ | ___ | ___ | ___ |
| 47. Impact of research on VTAE staff | ___ | ___ | ___ | ___ | ___ |
| 48. Evaluation of VTAE professional personnel | ___ | ___ | ___ | ___ | ___ |
| 49. Determining professional development needs | ___ | ___ | ___ | ___ | ___ |
| 50. Other: _____ | ___ | ___ | ___ | ___ | ___ |

COMMENTS/SUGGESTIONS: